

## REMARKS

The Office Action of June 9, 2009 was received and carefully reviewed. Claims 1-25 were pending prior to the instant amendment. By this amendment, claims 1-4, 6, 11-17 and 24-25 are amended. Consequently, claims 1-25 are currently pending in the instant application. Reconsideration and withdrawal of the currently pending rejections are requested for the reasons advanced in detail below.

Claims 1, 2, 5, 6, 7, 10, 13, 14, 15, 18, 19, 23 and 24 were rejected under 35 U.S.C. §103(a) as being unpatentable over Yamazaki et al. (US 2001/0055841 A1, hereinafter “Yamazaki ‘841”) in view of Takao (JP 2003-058077 A) and Yamazaki et al. (US 6,355,941, hereinafter “Yamazaki ‘941”). Claims 3, 8, 16 and 21 were rejected under 35 U.S.C. §103(a) as being unpatentable over Yamazaki ‘841 in view of Takao. Claims 12 and 25 were rejected under 35 U.S.C. §103(a) as being unpatentable over Yamazaki ‘841, Takao, and Yazamaki ‘941 as applied above, and further in view of Yamazaki et al. (US 6,355,941 B1, hereinafter “D4”<sup>1</sup>). Yamazaki ‘841, Takao, Yamazaki ‘941, and D4, however, fail to render the claimed invention unpatentable. Each of the claims recite a specific combination of features that distinguishes the invention from the prior art in different ways.

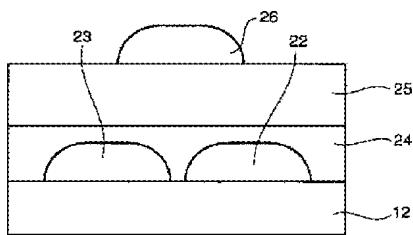
For example, on page 3 of the Office Action, the Examiner readily admits that “D1 does not explicitly appear to disclose (a) a substance having a photocatalytic function between the substrate and gate electrode, or (b) the wiring layer covers the edge portion of the first electrode. The Examiner turns to the disclosure of Takao in an attempt to cure the deficiencies of Yamazaki ‘841. The Examiner states the following regarding Takao:

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<sup>1</sup> The Examiner references Yamazaki et al. as US 6,355,941 B1, but it is noted that the same reference is utilized as the third reference in this prior art combination rejection. Nevertheless, the Examiner references Yamazaki et al. US 6,355,941 B1 (second occurrence) as “D4”.

*“However, in the same field of active-matrix devices, D2 discloses forming gate electrodes on a substrate having a photocatalytic surface (TiO<sub>2</sub>) by ink jet method to simplify the manufacturing of a TFT array (see at least paragraph 12).”* (regarding Claims 1, 2, 3, 4, 14, 15, 16, 17, in pages 3, 4, 5 and 8 in the Office Action).

Without conceding the propriety of the rejection, claims 1, 2, 3, 4, 14, 15, 16 and 17 have been amended to include the feature, *inter alia*, that a gate electrode is on the base film. By contrast, Takao does not disclose the aforementioned feature because, in FIGS. 9 and 10 of Takao, the gate electrode 26 is not on a substrate having a photocatalytic surface (TiO<sub>2</sub>) as shown below.



12: substrate having a photocatalytic surface  
22: drain electrode  
23: source electrode  
24: semiconductor layer  
25: insulating layer

The Examiner also purports the following regarding Takao:

*“However, in the same field of active-matrix devices, D2 discloses forming gate electrodes on a substrate having a conductive layer including a refractory metal (Ti) by ink jet method to simplify the manufacturing of a TFT array (see at least paragraph 12).”*, regarding Claims 6, 7, 8, 9, 19, 20, 21, 22 in pages 6, 7 and 9 in the Office Action.

However, the Examiner's rational is improper. The specification of present invention discloses refractory metal in paragraph [0022]. However, Takao fails to disclose refractory metal, not only “Ti (titanium)” but also other metal. Moreover, Takao does not teach or suggest the possibility of substrate having a conductive layer including a refractory metal (Ti) nor the motivation to use refractory metal for conductive layer within the written description.

In accordance with the M.P.E.P. § 2143.03, to establish a *prima facie* case of obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 409 F.2d 981, 180 USPQ 580 (CCPA 1974). “All words in a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 196 (CCPA 1970). Therefore, it is respectfully submitted that neither Yamazaki ‘841, Takao, Yamazaki ‘941, nor D4, taken alone or in any proper combination, discloses or suggests the subject matter as recited in the claims. Hence, withdrawal of the rejection is respectfully requested.

In view of the foregoing remarks, this claimed invention, as amended, is not rendered obvious in view of the prior art references cited against this application. Applicant therefore requests the entry of this response, the Examiner’s reconsideration and reexamination of the application, and the timely allowance of the pending claims.

In discussing the specification, claims, and drawings in this response, it is to be understood that Applicant in no way intends to limit the scope of the claims to any exemplary embodiments described in the specification and/or shown in the drawings. Rather, Applicant is entitled to have the claims interpreted broadly, to the maximum extent permitted by statute, regulation, and applicable case law.

**Except** for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 19-2380. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Should the Examiner believe that a telephone conference would expedite issuance of the application, the Examiner is respectfully invited to telephone the undersigned patent agent at (202) 585-8316.

Respectfully submitted,

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